

# Antidepressants aid electroconvulsive therapy in treating severe depression

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Combining antidepressant drugs with electroconvulsive therapy (ECT) does a better job of reducing symptoms of severe depression and causes less memory loss than using ECT alone, according to a new study by researchers at Wake Forest University School of Medicine and colleagues.

This finding could alleviate one of the primary concerns about ECT - that it causes [memory loss](#), said W. Vaughn McCall, M.D., M.S, professor and chairman of the Department of Psychiatry and Behavioral Medicine and the principal investigator for the study's Wake Forest Baptist site.

The full study appears in the current issue of the [Archives of General Psychiatry](#), published today.

ECT uses an electrical stimulus to the brain to induce seizures. It is prescribed for patients with crisis-level severe depression - who are catatonic (people who are so slowed down that they stop moving, talking and eating) or suicidal - or for patients with major depression who have not responded to medication. Electrodes attached to the head deliver the stimulus and patients are anesthetized and receive muscle relaxants during the procedure.

Patients receiving ECT often experience some memory loss that usually improves within days of treatment.

Researchers wanted to find a way to increase the effectiveness of ECT while reducing the side effects of memory loss.

"Although ECT remains a powerful treatment, there is still a significant proportion of patients that do not respond - recent statistics show a 70 to 80 percent response rate," McCall said. "Even in patients who do respond, there still is a significant risk of relapse. Patients may become ill again with depression within a matter of weeks to a few

months after ECT."

The study is the first of its size to evaluate the use of antidepressants with ECT. Because of a lack of prior information on the topic of combining antidepressant medications with ECT, the American Psychiatric Association has not recommended routinely combining antidepressants with ECT.

The research was studied at several sites including Wake Forest University School of Medicine, Columbia University in New York, Washington University in St. Louis, and the University of Pittsburgh. It was coordinated by researchers at Columbia.

After consenting to the treatment, 319 patients received either a placebo or one of two antidepressants: nortriptyline, an older, generic drug, or venlafaxine, a newer drug that is sold under the brand name Effexor™. The patients also received at least one form of ECT - either bilateral, stimulating both sides of the brain, or unilateral, affecting only the right side to keep the stimulus away from the verbal learning centers in the left side of the brain. Unilateral ECT is generally believed to cause less memory loss than bilateral ECT, but some investigators believed that unilateral ECT did not treat the depression symptoms as well.

Following treatment, patients were evaluated using a series of tests for changes in their depression symptoms and for memory loss.

The researchers found that using either antidepressant during ECT improved depression more than ECT alone. Moreover, [patients](#) who received nortriptyline during ECT had fewer memory problems compared with the venlafaxine group. Researchers also found that using a high dose of unilateral ECT on the right side of the brain was as effective as or superior to treating

depression with moderate-dose bilateral ECT and still spared memory loss.

"We've been doing research for the last 10 years to find a way to make unilateral stimulation work as well as bilateral," McCall said. "We finally did that in this study."

The next step in this line of research, McCall said, is to evaluate the long-term effects of the treatment.

Source: Wake Forest University Baptist Medical Center ([news](#) : [web](#))

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